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AUTHOR Savitz, Fred R.; Drucker, Sally  
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## ABSTRACT

A study was conducted to test the hypothesis that first grade children with a full-day kindergarten experience would achieve higher scores on the Tests for Analysis and Placement (TAP) Level 2 (Readiness) Basic than those children with half-day experience. Subjects were 19 first grade students who completed the TAP on two consecutive days. In addition, the parents of the children completed a questionnaire eliciting information about their child's kindergarten experiences. Analysis of results did not support the hypothesis. There were no data to support the idea that participation in a full-day kindergarten program would lead to higher TAP scores. Further, the results did not find an effect, either positive or negative, on first grade reading achievement attributable to the type of kindergarten program attended. (A copy of the parent questionnaire is appended). (FL)

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*Kindergarten Experience and First Grade*

*Reading Achievement*

*A paper presented at the 17th  
Annual Conference of the Keystone  
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*Dr. Fred R. Savitz  
Assistant Professor of Education  
Saint Joseph's University*

*Ms. Sally Drucker  
Elementary School Teacher  
Lower Merion Township, PA*

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Fred R. Savitz

## Review of Literature

Preschool programs have become an important part of our educational process. The United States Department of Commerce Bureau of the Census shows that the number of children attending nursery school in 1978 was more than double the number attending in 1968. With this increase in attendance, the number of preschool options has increased. There are church related preschools, private tuition preschools, public school kindergartens and private kindergartens--half and full day programs. This paper intends to study whether or not the preschool program a child has attended measurably affects his beginning reading performance in first grade.

Many researchers have attempted to compare preschool programs and their effect on reading readiness in first grade. The New York State Education Department published an evaluation of an experimental pre-kindergarten program in 1982. The five year study began with a group of children entering the pre-kindergarten in 1975 and ended when the same children completed third grade in 1980. Some differences were identified in favor of the children who attended the pre-kindergarten program as opposed to those who did not attend any program. Cognitive development as well as general progress through the grades was cited as being positively affected by preschool experience.

In Monte E. Dawson's "Prospectus on Preschool Programs" of July, 1981, similar results were published. The children who attended a preschool program required less special educational services and scored higher in reading, math, and language achievement over the four years of the program spanning kindergarten through third grade.

A document that closely resembles the research topic being pursued here is a paper titled "The Relationship Between Preschool Experiences and Reading Achievement: A Five Year Follow-up Study" published in 1982 by Charles Waddell Creech.

The study sets out to discover "...whether there were significant differences in the first, second, third, fourth, and fifth grade reading achievement scores between students who have had experience in a preschool program and students who have had no experience in a preschool program". No significant difference was found in first grade reading achievement scores between the two groups of students. However, Creech does cite other research that found a positive correlation between preschool experience and first grade reading achievement. Wolff and Stein (1966), Nieman and Gastright (1981), Turner and Deford (1970) each document that children with more preschool experience had superior scores in reading, math, and academic readiness and performance. In addition, other research supports the idea that preschool can positively affect a child's self concept and "...educators believe that positive self confidence is the condition "sine qua non" for learning to take place." (Arenas, 1982) Karen Fitzpatrick also notes a relationship between a positive self-concept and reading achievement (Fitzpatrick, 1982) in her article titled "Attention Parents: Your Preschool Child and Reading".

Much research has been done to document the effect of parental involvement on children's readiness and reading performance. Joanne C. Burgess found a positive effect on children's reading scores caused by parent-child interaction in the home.

This interaction was instead of, not in addition to preschool classes for children. Other research does touch on parent involvement which comes in addition to the child's attendance in a preschool program. This involvement has been found to be generally enriching and beneficial for the child (Fitzpatrick, 1982).

### Limitations

The author recognizes the possible importance of a great number of factors involved in a child's first grade beginning reading achievement. However, there are limitations within this study as follows:

1. The study will not attempt to determine the influence of a child's socio-economic status on first grade reading achievement.

A. The sample was predominately white middle to upper middle class and suburban with a small number of disadvantaged children.

2. The study will not attempt to determine the influence of parental involvement on first grade reading achievement.

3. The study will limit itself to consideration of a child's kindergarten experience and will not include attendance at nursery or day care programs in its comparisons.

4. The study will compare children's kindergarten experience by their attendance in a full day or a half day program only. No consideration will be given to evaluating or identifying individual programs.

### Problem

1. Does the kindergarten program a child has attended measurably affect his first grade beginning reading achievement?

A. How do variations in the kindergarten program affect first grade beginning reading achievement if at all?

### Hypothesis

H Participation in a kindergarten program does affect first grade beginning reading achievement.

$H_1$  Participation in a kindergarten program does positively affect first grade beginning reading achievement.

### Null Hypothesis

$H_0$  There is no difference in reading achievement as demonstrated by completion of T.A.P. 2, between first grade youngsters with half day kindergarten experience and first grade youngsters with full day kindergarten experience.

### Alternate Hypothesis

Children with full day kindergarten experience will achieve higher scores on T.A.P.2 than will children with half day kindergarten experience.

### Definition of Terms

When discussing programs of half or full day duration, what is generally meant is that a half day consists of roughly two and a half hours either in the morning or afternoon, while a full day program runs approximately six hours including lunch.

Beginning reading achievement will be defined broadly by the method of measurement that has been selected.

The instrument used was the Tests for Analysis and Placement (T.A.P.) Level 2 (Readiness) Basic. This is a series of tests which accompanies the Laidlaw Reading Program. The tests include:

- 1: Phoneme-Grapheme correspondence including auditory discrimination sounds and letters and word identification;
- 2: Sight recognition;
- 3: Reading comprehension broken into word meaning and sentence meaning; and
- 4: Listening comprehension.

### Method

This study took place in Penn Wynne, Pennsylvania, a suburb of Philadelphia, Pennsylvania, in November of 1983.

The parents of the nineteen children being studied were given a brief questionnaire to complete (see illustration 2). This questionnaire was intended for the purpose of describing each child's experience in kindergarten in terms of hours per day and number of school years.

Other information gathered was not directly related to the purpose of this study and therefore will not be discussed.

The children were then grouped into the two basic divisions of kindergarten attendance--Half day and Full day. Of the 19 children studied nine had attended half day programs, 10 had attended full day programs. (see illustration 3)

The T.A.P.2 tests were administered on two consecutive days. The children generally seemed comfortable with the procedure.

results

The results were studied and scores were computed according to the testing instructions. One point was awarded to each correct student response while no points were subtracted for an incomplete or incorrect answer. The scores ranged from 70 (highest possible score) to 54. Scores are classified into the areas "Mastery", "Guided Practice", and "Reteach". All but two children scored within the Mastery range.

As shown in illustration 4 the total group mean score was 66.7. When the children were divided into the half and full day groups their scores were listed and the mean averages found. The half day mean score was 66.7, the full day mean score was 66.8.

### Analysis of Results

Analysis of the mean scores of both the half day and the full day kindergarten groups shows that the hypotheses previously stated were not found to be true. There is no data herein to support the idea that participation in a full day kindergarten will cause higher scores on T.A.P.2 than will participation in a half day kindergarten. The mean scores of 66.7 and 66.8 show no appreciable difference in achievement. This study cannot verify any effect positive or negative on first grade reading achievement due to the kindergarten program attended.

A number of new problems arise from this study;

1. Was the T.A.P.2 an effective instrument? All but two of the children scored within the highest limits of the test. Perhaps a more demanding instrument would show a more varied achievement pattern, thereby defining to a greater extent the levels of achievement.

2. Analysis of the individual kindergarten programs might prove to be important in defining any existing factors contributing to higher achievement. For example: time spent in instruction, program(s) used; number of students per class; number of students per teacher.

3. Personal characteristics such as I.Q., socio-economic status; parents' level of education; parent-child inter-

action;---all are areas to be explored in the search for characteristics that affect achievement.

As discussed in the first part of this paper, the interest in pre-first grade programs is growing. With the many options available information is needed which will point out beneficial characteristics present in any of the programs. This research paper illustrates no appreciable effect on first grade beginning reading achievement -- pro or con -- due to the length of the kindergarten day. More research is called for to try to single out the aspects of pre-first grade experiences that do positively affect beginning reading achievement.

Illustration 1, T.A.P. 2, score sheet to use after Dancing Ducks, Teacher's Edition, Level 2 (Readiness) Basic, by Roger Farr and Nancy Lee Roser, Laidlaw Brothers, Publishers, River Forest, IL, copyright 1980, removed due to copyright restrictions.

Illustration #2      Questionnaire

Please identify your child's pre-first grade experience by filling in the appropriate items below.

Child's name \_\_\_\_\_

Name of kindergarten attended \_\_\_\_\_

Location \_\_\_\_\_

Half day program \_\_\_\_\_

Full day program \_\_\_\_\_

Number of school years in kindergarten \_\_\_\_\_

\* \* \* \* \*

Name of nursery school \_\_\_\_\_

Location \_\_\_\_\_

Number of hours per day \_\_\_\_\_

Number of days per week \_\_\_\_\_

Number of school years in nursery school \_\_\_\_\_

\* \* \* \* \*

Name of day care program \_\_\_\_\_

Location \_\_\_\_\_

Number of hours per day \_\_\_\_\_

Number of days per week \_\_\_\_\_

Number of school years in day care \_\_\_\_\_


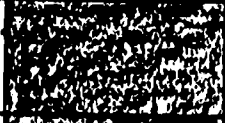











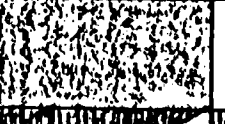



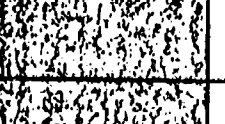


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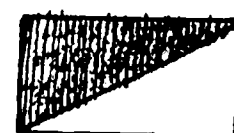
Please add any comments you care to share regarding time you have spent directly involved with your child in the years before first grade. Did you travel? Play games? Work with letters and/or numbers? How often? Watch T.V. together? Read together?..... Feel free to write on the back of this paper.

Thank you for your time.

Illustration #3

Experience - Half and Full Day Experience

|    |          |   |   |  |
|----|----------|---|---|--|
| 68 | Kelly    |    |   |  |
| 69 | Allyson  |    |   |  |
| 69 | Danielle |    |   |  |
| 70 | Michael  |    |   |  |
| 66 | Melanie  |    |   |  |
| 62 | Jennifer |    |   |  |
| 69 | Heidi    |   |   |  |
| 54 | Stephen  |  |   |  |
| 69 | Rachael  |  |   |  |
| 70 | David    |  |   |  |
| 69 | Frank    |  |   |  |
| 70 | Alice    |  |   |  |
| 69 | Zachary  |  |   |  |
| 69 | Mandy    |  |   |  |
| 70 | Ari      |  |   |  |
| 69 | Nikkie   |  |  |  |
| 69 | Nadiyah  |  |   |  |
| 70 | Jackie   |  |   |  |
| 69 | Megan    |  |   |  |



Half day



Full day

1 year      2 years      3 years

| Illustration #4 | T.A.P | scores                |
|-----------------|-------|-----------------------|
| Michael         | 70    |                       |
| David           | 70    |                       |
| Alice           | 70    |                       |
| Ari             | 70    |                       |
| Jackie          | 70    |                       |
| Allyson         | 69    |                       |
| Heidi           | 69    |                       |
| Danielle        | 69    |                       |
| Mandy           | 69    |                       |
| Megan           | 69    | Total mean score 66.7 |
| Kelly           | 68    |                       |
| Zachary         | 68    |                       |
| Rachael         | 67    |                       |
| Nikkie          | 67    |                       |
| Nadiyah         | 67    |                       |
| Melanie         | 66    |                       |
| Jennifer        | 62    |                       |
| Frank           | 55    |                       |
| Stephen         | 54    |                       |

Illustration #5

T.A.P. Scores -- Half and Full Day Experience

Half Day Kindergarten

|         |    |
|---------|----|
| Michael | 70 |
| Alice   | 70 |
| Heidi   | 69 |
| Kelly   | 68 |
| Zachary | 68 |
| Rachael | 67 |
| Nikkie  | 67 |
| Nadiyah | 67 |
| Frank   | 55 |

Full Day Kindergarten

|          |    |
|----------|----|
| David    | 70 |
| Ari      | 70 |
| Jackie   | 70 |
| Allyson  | 69 |
| Danielle | 69 |
| Mandy    | 69 |
| Megan    | 69 |
| Melanie  | 66 |
| Jennifer | 62 |
| Stephen  | 54 |

Half Day Mean - 66.7

Full Day Mean - 66.8

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